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UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
(OAKLAND DIVISION)

ALFRED T. GIULIANO, Chapter 7
Trustee of the Ritz Estate, on Behalf
of the Ritz Estate; CPM Electronics Inc.;
and E.S.E Electronics, Inc.

On Behalf of Themselves and
All Others Similarly Situated,

Plaintiff,

v.

SANDISK CORPORATION

Defendant.

CASE NO. CV 10-02787-SBA

**PLAINTIFFS' OPPOSITION TO
SANDISK CORPORATION'S MOTION
FOR SUMMARY JUDGMENT AND
MEMORANDUM OF POINTS AND
AUTHORITIES**

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SanDisk's motion for summary judgment – like its motion to exclude Dr. Sullivan (Dkt. No. 258-4) – simply ignores relevant record evidence and misrepresents plaintiffs' arguments and evidence. SanDisk argues that it is entitled to summary judgment because there is insufficient record evidence of fraud in the procurement of the '338 and '517 patents, while ignoring that this Court has already held otherwise. SanDisk then attacks plaintiffs' evidence of market power by misrepresenting the legal requirements and ignoring the more than 1,500 pages of economic analysis produced by plaintiffs' expert, Dr. Ryan Sullivan. In fact, Dr. Sullivan's thorough econometric analysis of flash chip prices over time in relation to the royalties charged by SanDisk (both before the successful enforcement of the '338 patent and after the patents expired) establishes that SanDisk's enforcement of the fraudulent patents had the direct result of higher prices for SanDisk flash memory products. SanDisk's motion should be denied in all respects.

BACKGROUND

At issue in this case are two patents issued to SanDisk for flash memory technology. The first – U.S. Patent No. 5,172,338 (“the '338 patent”) – was issued on December 15, 1992, and describes “[i]mprovements in the circuits and techniques for read, write and erase of EEPROM memory [that] enable non-volatile multi-state memory to operate with enhanced performance over an extended period of time.” *See* Declaration of Joseph S. Hall (“Hall Dec.”), Ex. A ('338 patent). The second – U.S. Patent No. 5,991,517 (“the '517 patent”) – was issued on November 23, 1999, and sets forth a “system of Flash EEPROM memory chips with controlling circuits [that] serves as non-volatile memory such as that provided by magnetic disk drives.” *Id.*, Ex. B ('517 patent). The '517 patent incorporates the '338 patent by reference, although the '517 patent was intended to cover technology beyond that described in the '338 patent. Eliyahou Harari and

1 Sanjay Mehrotra (two of SanDisk's three founders) are both listed as named inventors on the
2 '338 and '517 patents.

3 The '338 Patent

4 In 1996, SanDisk filed a complaint against Samsung with the United States International
5 Trade Commission ("ITC") alleging that Samsung was infringing the '338 patent. The ITC
6 initiated an investigation ("the 382 Investigation"), in the course of which both parties requested
7 reexamination of the '338 patent by the United States Patent and Trademark Office ("USPTO")
8 based on Samsung's discovery of prior art that it asserted was anticipatory. During
9 reexamination proceedings, Samsung argued that the means for programming and inhibiting
10 programming of memory cells described by claim 27 of the '338 patent was previously disclosed
11 in an article by Guido Torelli (a former employee of STMicroelectronics ("STM")), as well as an
12 STM product (the M293). *See SanDisk Corp. v. STMicroelectronics, Inc.*, No. C 04-4379 JF
13 (RS), slip-op., at 2-3 (N.D. Cal. Oct. 17, 2008) ("Fogel Op.").
14
15

16 To overcome this prior art, SanDisk argued that, unlike the Torelli article and the M293,
17 claim 27 of the '338 patent did not describe a temporary or incremental inhibit feature, but rather
18 "permanent inhibit." *Id.* at 3. In support of its argument, SanDisk pointed to "latch 721" in
19 Figure 16 and argued that latch 721 was a "one-way latch," and that persons of ordinary skill in
20 the art would recognize the need for a one-way latch in order to achieve the "permanent inhibit"
21 functionality. *Id.* The PTO agreed with SanDisk, ruling that "the inhibiting feature recited in the
22 claims of the ['338] patent is enabled by latch 721 in figure 16 which is a one way resettable
23 latch."¹
24
25
26

27 ¹ Hall Dec., Ex. C at 3 (Reexam. Reason for Patentability/Confirmation (Apr. 16, 1997) and
28 Notice of Intent to Issue Reexam. Certificate (Apr. 25, 1997)).

1 What the PTO was not made aware of, however, was that one of the co-inventors listed
 2 on the '338 patent – Sanjay Mehrotra – had offered differing testimony about how one of
 3 ordinary skill would understand latch 721 and claim 27 of the '338 patent.² During the ITC
 4 investigation, SanDisk's expert testified that the '338 patent discloses only temporary inhibit.³
 5 And, despite the fact that the inventors of the '338 patent were aware of the pending
 6 reexamination proceedings, SanDisk failed to disclose that the overwhelming majority of latches
 7 drawn similar to latch 21 are two-way latches. Indeed, not only did Mehrotra and Harari author
 8 a published paper (the "VLSI article") in which a latch identical to latch 721 is described as a
 9 two-way latch, but SanDisk has been unable to identify any publication prior to the filing date of
 10 the '338 patent in which a latch such as the one depicted in Figure 16 was a one-way latch.⁴

12 SanDisk also intentionally withheld material prior art from the USPTO. Two U.S.
 13 patents issued to Richard Simko ("the Simko patents") prior to the filing of the '338 patent
 14 disclose a permanent inhibit feature.⁵ In addition, an English patent application, the GB145
 15 reference, likewise disclosed permanent inhibit prior to the '338 patent.⁶ SanDisk's patent
 16 counsel – which remained the same throughout the prosecutions of the '338 and '517 patents and
 17 through the '338 reexamination proceedings – was well aware of these references, having both
 18 entered the references into a searchable database for the very purpose of identifying relevant
 19 prior art.⁷ Sandisk's counsel also cited to the PTO a few years earlier the Simko references as
 20
 21
 22

23 ² Hall Dec., Ex. D at 412:5-15 (Mehrotra Tr.) (excerpts attached).

24 ³ Hall Dec., Ex. E at 3019:3-25; 3030:5-16 (Rao Tr.) (excerpts attached).

25 ⁴ Hall Dec., Ex. E at 3035:17-23; 3039:4-3040:9 (Rao Tr.); *id.*, Ex. D at 463:24-464:16 (Mehrotra Tr.).

26 ⁵ Hall Dec., Ex. E at 3000:4-8 (Rao Tr.); *id.*, Ex. D at 480:6-18 (Mehrotra Tr.).

27 ⁶ Hall Dec., Ex. E at 3014:16-18 (Rao Tr.).

28 ⁷ See Hall Dec., Exs. F (Parsons Database Entries), G at 744:21-745:10; 751:3-10; 752:12-753:7 (Parsons Tr.). SanDisk's counsel had created the database for the purpose of complying with

1 “of particular interest” while prosecuting a separate patent application describing inhibit features
 2 on behalf of Harari.⁸ SanDisk was also very familiar with the Simko patents, as SanDisk had
 3 hired Richard Simko as a testifying expert and a litigation consultant during the 382
 4 Investigation while the ’338 reexamination proceedings were ongoing.⁹

5 The ’517 Patent

6
 7 While the 382 Investigation and the ’338 reexamination was ongoing, SanDisk was also
 8 prosecuting the ’517 patent. *See* Fogel Op., at 4. SanDisk intended that the ’517 Patent would
 9 build on the permanent inhibit features of the ’338 patent, which SanDisk claimed was
 10 patentable by itself, while adding other improvements to flash memory technology.¹⁰ Despite
 11 the fact that the ’338 reexamination proceedings were ongoing at the time SanDisk was
 12 prosecuting the ’517 patent, SanDisk failed to disclose the the Simko patents, as well as GB145
 13 (an English patent application), nor did SanDisk disclose a Japanese reference – JP100 – which it
 14 knew had a direct bearing on the prosecution of the ’517 patent. SanDisk was well aware of
 15 JP100 at the time, as SanDisk’s counsel had entered JP100 into the searchable database in 1998,
 16 the same year that the PTO cited JP100 in rejecting another SanDisk patent application which
 17 claimed similar technology.¹¹ In 2001, the Japanese patent office relied on JP100 to reject claim
 18 one of the counterpart Japanese application of the ’517 patent. Fogel Op. at 4-5. Ultimately, an
 19 administrative law judge in an ITC investigation brought by SanDisk against STM concluded
 20 that the ’517 patent was invalid as anticipated and/or obvious in light of GB145, JP100, and one
 21
 22
 23

24 their duties to disclose relevant prior art. *See* Hall Dec., Ex. G (Parsons Tr. at 743:17-744:7;
 25 Parsons Dep. at 131:12-22) (excerpts attached).

26 ⁸ *See* Hall Dec., Ex. H at ST 560-H 0000016487-88 (’560 Patent File History).

27 ⁹ Hall Dec., Ex. I at 317:1-318:7 (Harari Tr.) (excerpts attached).

28 ¹⁰ Hall Dec., Ex. J (’517 File History); Ex. G at 789:17-22 (Parsons Tr.).

¹¹ Hall Dec., Ex. O (Parsons Database Entry for JP100).

1 of the Simko patents.¹² Although the ALJ did not reach the issue of inequitable conduct with
 2 regard to the '517 patent, the ALJ nevertheless concluded that GB145, JP100 and the Simko
 3 patent were material references.¹³

4 Relevant Procedural History

5 On June 25, 2010, Plaintiff Ritz Camera, on behalf of a putative class, filed a complaint
 6 against SanDisk alleging that SanDisk had violated the Sherman Act, 15 U.S.C. § 2. Ritz's
 7 Complaint alleges that SanDisk fraudulently procured the '338 and '517 patents. Dkt. No. 1.
 8

9 SanDisk moved to dismiss the complaint, arguing that Ritz lacked standing to bring a
 10 *Walker Process* claim because, as a direct purchaser of SanDisk flash products, Ritz faced no
 11 threat of an infringement action nor was there any other basis to bring a declaratory judgment
 12 action aimed at invalidating the patents. SanDisk also argued, among others, that Ritz lacked
 13 antitrust standing.
 14

15 This Court rejected SanDisk's arguments. *See Ritz Camera & Image, LLC v. SanDisk*
 16 *Corp.*, 772 F. Supp. 2d 1100, 1103-05 (N.D. Cal. 2011). Judge Fogel concluded that *Walker*
 17 *Process* places no limitations on the parties who could bring suit, *id.* at 1105, and that this
 18 Court's prior determination that allegations of fraud relating to the '338 and '517 patents had
 19 survived a motion for summary judgment and "rais[ed] at least some question as to the validity
 20 of the subject patent[s]." *Id.*
 21

22 SanDisk subsequently petitioned for interlocutory review to the Federal Circuit. On
 23 November 20, 2012, the Federal Circuit affirmed this Court's decision, finding that Ritz properly
 24 stated a claim under *Walker Process*, which did not limit the parties eligible to bring claims to
 25

26 ¹² See Hall Dec., Ex. N (560 Initial Determination) at 55, 60-63. SanDisk did not appeal the
 27 invalidity determination. *See* 72 Fed. Reg. 39,444 (July 18, 2007).

28 ¹³ *Id.* at 67.

1 those who could independently challenge the validity of the allegedly fraudulent patents. *Ritz*
 2 *Camera & Image, LLC v. SanDisk Corp.*, 700 F. 3d 503 (Fed. Cir. 2012).

3 Following various amendments to the complaint to add additional parties and revise
 4 certain allegations, plaintiffs filed for leave to file a fourth amended complaint on December 16,
 5 2013. SanDisk opposed that motion and filed a motion to dismiss, arguing this Court lacked
 6 subject matter jurisdiction because plaintiffs lacked standing to represent both purchasers of both
 7 raw and finished flash products. Dkt. No. 243. On September 19, 2014, this Court denied
 8 SanDisk's motion to dismiss, finding that plaintiffs had standing to assert Section 2 claims in the
 9 raw and finished NAND markets "particularly since the asserted injury to purchasers of both raw
 10 and finished NAND flash memory product is predicated on the same alleged wrongful conduct."
 11 *Id.* at 6.

12 ARGUMENT

13 **I. There is Ample Record Evidence That SanDisk Perpetrated Fraud on the U.S. Patent Office During the '338 Patent Reexamination**

14 The testimony of SanDisk's own witnesses – in prior litigations and administrative
 15 proceedings, as well as in statements to the PTO – demonstrate that SanDisk intentionally
 16 withheld relevant, material prior art from the PTO. SanDisk furthermore affirmatively
 17 misrepresented the nature of a key component of the '338 patent during reexamination in order
 18 to preserve its patentability. SanDisk's omissions and misrepresentations were all part of its
 19 effort to protect the multibillion dollar monopoly it had on technology necessary to practice flash
 20 memory technology. The evidence shows that SanDisk's monopoly on that technology was
 21 obtained by fraud, and that plaintiffs are thus entitled to bring Section 2 claims against SanDisk
 22 under *Walker Process*.
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SanDisk devotes seven pages of its motion to the procedural history of this case and the '338 and '517 patents, as well as an additional six pages of argument urging summary judgment as to plaintiffs' claims of fraud on the PTO. Nowhere in those 13 pages, however, does SanDisk mention that this Court has already once denied SanDisk the very relief it now requests, on the very same basis SanDisk now urges on this Court. During the prior litigation involving SanDisk and STM, Judge Fogel denied SanDisk's motion for summary judgment in a thorough 18-page opinion, holding that "there is sufficient evidence to preclude summary judgment regarding the materiality of the alleged misrepresentations and omissions with respect to both the '338 and '517 patents." Fogel Op. at 10. Judge Fogel thus concluded that "[a] jury should be allowed to make the ultimate determination of whether SanDisk's arguments and the omitted prior art were sufficiently material for liability under *Walker Process*." *Id.*

SanDisk fails to mention Judge Fogel's opinion, much less offer any additional evidence or argument that would suggest a different result here. Nor does SanDisk attempt to explain why Judge Fogel's detailed analysis of the same record evidence was in any way in error. Indeed, it cannot. As demonstrated below, there is substantial evidence that SanDisk knowingly mischaracterized its intellectual property and withheld relevant, material prior art from the PTO in order to obtain and preserve the '338 and '517 patents.

SanDisk first argues (at 10-11) that it "did not commit fraud during the '338 patent reexamination."¹⁴ SanDisk contends that it disclosed all material prior art to the examiner, and that it was the examiner that nonetheless concluded that latch 721 was a one-way latch. *See* Mot.

¹⁴ SanDisk previously argued to this Court that any prior art references regarding the '517 patent were not material. Judge Fogel noted in denying summary judgment on the '517 patent that the evidence of materiality was particularly strong, not the least because the ALJ in the 560 Investigation had cited one of the Simko patents to invalidate the '517 patent. Fogel Op. at 9. Evidence regarding SanDisk's prosecution of the '517 patent is admissible to demonstrate SanDisk's fraudulent intent in prosecuting the '338 patent, and vice-versa.

1 at 10-11. This argument simply ignores the record evidence that SanDisk knew full well that the
 2 latch 721 was a two-way latch, and that it nonetheless argued the exact opposite to the PTO
 3 during the reexamination proceedings.

4 The primary issue during the '338 reexamination proceedings was whether a single
 5 structure – latch 721 – was a “one-way” latch or a “two-way” latch.¹⁵ In an effort to convince
 6 the PTO that the invention described in the '338 patent was novel, SanDisk was compelled to
 7 argue during reexamination proceedings that the '338 described a form of “permanent inhibit,”
 8 which was achieved only by using a “one-way” latch depicted as structure 721 in Figure 16 of
 9 the '338 patent. Based on SanDisk's representations that latch 721 was a “one-way” latch that
 10 enabled “permanent inhibit” – the only feature that made the '338 patentable over the prior art –
 11 the PTO confirmed the patentability of the '338 patent.
 12

13 Of course, what the PTO was not told – but which SanDisk knew at the time – was that:
 14 1) latch 721 is actually a two-way latch; and 2) regardless “permanent inhibit” had already been
 15 disclosed in the prior art. SanDisk's own witnesses have conceded – as they must – that:
 16

- 17 ■ latch 721 as depicted in figure 16 is a “two-way” latch and is characterized
 18 as such by the written description¹⁶
- 19 ■ the algorithm described in the patent requires latch 721 to be a “two-way”
 20 latch¹⁷
- 21 ■ latch 721 could only be a “one-way” latch if it were completely
 22 reengineered in a way that has not been described in the '338 patent, or
 23 any other patent or publication.¹⁸

24 ¹⁵ See Hall Dec., Ex. E at 3018:15-23 (Rao Tr.) (admitting that if latch 721 is a two way latch
 25 “there is no way to do permanent inhibit in either the '338 or '517 patents”).

26 ¹⁶ See Hall Dec. Ex. D at 412:5-15 (Mehrotra Tr.), Ex. E at 3021:16-3022:5, 3030:17-19
 (Rao Tr.).

27 ¹⁷ See Hall Dec. Ex. D at 439:15-22 (Mehrotra Tr.), Ex. E at 3027:18-25; 3030:20-22 (Rao Tr.).

28 ¹⁸ During litigation involving the '338 patent, SanDisk engaged in a multiyear campaign to
 identify a single publication showing a latch such as the one depicted as latch 721 as “one-way.”

1 Moreover, a conference paper written by two of the inventors named on the '338 patent –
2 Mehrotra and Harari – depicted a latch drawn exactly as the one shown in Figure 16 on the '338
3 patent and confirms that latch 721 was intended to represent a two-way latch.¹⁹

4 In addition, SanDisk's own attorneys had prior art in their possession that disclosed the
5 "permanent inhibit" feature that SanDisk had claimed was novel and a basis for patentability.
6 Those references – the Simko '179 patent, the Simko '259 patent, the GB145 reference, and the
7 JP100 reference – were all in the prior art database maintained by SanDisk's attorneys, but
8 undisclosed to the PTO. SanDisk's own witnesses have testified under oath that both of the
9 Simko patents disclose a "permanent inhibit" programming system, and SanDisk's expert (in
10 prior litigation) admitted that the GB145 reference discloses a "permanent inhibit" erasing
11 system.
12

13 Nor is there any doubt that the Simko references were known to SanDisk at the time of
14 the '338 reexamination proceedings. SanDisk retained Richard Simko (the named inventor) as a
15 consulting expert for the ITC proceedings SanDisk instituted against Samsung in which SanDisk
16 asserted the '338 patent. Likewise, both the GB145 reference and the Simko patents were
17 logged into the prior art database of SanDisk's prosecuting attorneys six months prior to the
18 '338 reexam.
19

20 Moreover, SanDisk's own attorneys were acutely aware of the import of the references.
21 In 1993, SanDisk's law firm had cited both the Simko references in the prosecution of one of
22 Harari's other patents to the PTO, claiming that they were relevant to claims addressing means of
23

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25
26 It found none. *See* Hall Dec. Ex. D at 463:24-464:16 (Mehrotra Tr.); Ex. E at 3035:17-23,
27 3039:4-3040:9 (Rao Tr.).

28 ¹⁹ Hall Dec., Ex. E at 3049:24-3050:2 (Rao Tr.).

1 inhibit used in flash chip technology.²⁰ Despite all of the evidence that SanDisk’s inventors,
 2 attorneys, and retained experts were aware of material prior art references, those references were
 3 never disclosed to the PTO. Indeed, SanDisk could not have argued that it had invented
 4 “permanent inhibit” had such references been disclosed.

5 SanDisk argues (at 11) that because it presented the information for the “ ‘patent
 6 examiner to examine [himself], [the examiner] was free to accept or reject,’ SanDisk’s
 7 arguments on the one-way latch issue.” (quoting *Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d
 8 1363, 1379 (Fed. Cir. 2008)). But the record evidence is more than sufficient to allow a
 9 reasonable juror to conclude that while SanDisk knew the depiction of latch 721 Figure 16 was
 10 intended to be a two-way latch, that it nonetheless represented to the PTO that it had intended the
 11 latch to be a one-way latch. Given this evidence, this Court has already once concluded that “
 12 ‘the ultimate determination as to how the examiner arrived at his final decision is a question for
 13 the jury.’ ” Fogel Op. at 10 (denying SanDisk motion for summary judgment as to the ’338
 14 patent and quoting *Monsanto v. Bayer Bioscience, N.V.*, 363 F.3d 1235, 1240-41 (Fed. Cir. 2004)
 15 (whether misrepresentations are “false or misleading” is an issue of material fact)). SanDisk has
 16 given this Court no reason to reach a contrary result, and this Court should accordingly deny
 17 summary judgment here as well.

18 **II. SanDisk Committed Fraud on the PTO by Failing to Provide Relevant, Material** 19 **Prior Art**

20 SanDisk argues that it is entitled to summary judgment because plaintiffs have failed to
 21 offer expert testimony. But aside from SanDisk’s conclusory assertions that the matters at issue
 22 are complicated, SanDisk fails to offer any basis for granting summary judgment. Indeed, as this
 23 Court already concluded, the misrepresentations and omissions of the inventors and SanDisk are

24 ²⁰ See Hall Dec. Ex. H at ST 560-H 0000016487-88 (’560 File History) (identifying Simko
 25 patents as “of particular interest” with regard to inhibit mechanisms).

1 sufficient *by themselves* to establish fraud on the PTO. Fogel Op. at 12-13. Moreover, the
 2 Federal Circuit has never adopted a *per se* requirement that fraud be proved by expert testimony,
 3 and courts have routinely found that experts cannot opine on matters such as fraudulent intent.
 4 Finally, SanDisk’s argument that there is no evidence of fraud or an intent to deceive simply
 5 ignores the record in the cases and those preceding it.
 6

7 **A. Expert Evidence Is Not Required**

8 The Federal Circuit has never stated a *per se* requirement that any element of a patent
 9 case must be proved by expert testimony. To the contrary, the Federal Circuit has held that
 10 “[w]e do not state a *per se* rule that expert testimony is required . . . when the art is complex.”
 11 *Centricut, LLC v. Esab Grp., Inc.*, 390 F.3d 1361, 1369 (Fed. Cir. 2004). Moreover, as
 12 illustrated by *Wyers v. Master Lock Co.*, 616 F.3d 1231 (Fed. Cir. 2010), one of the case SanDisk
 13 relies upon, expert testimony is not necessary when the inventor – who is by definition “one
 14 skilled in the art” – makes concessions that provide relevant evidence on the matters at issue. *Id.*
 15 (affirming finding of obviousness despite lack of expert testimony where inventor’s admissions
 16 and “common sense” compelled finding).
 17

18 Furthermore, the relevant issues in this litigation do not require that the jury evaluate
 19 complicated issues of technology. To the contrary, it is beyond dispute that had the PTO
 20 understood that latch 21 was a “two-way” latch, that the ’338 patent would not have issued, as
 21 SanDisk argued during reexamination that a “one-way” latch was critical to the permanent
 22 inhibit feature. Likewise, as this Court has already found, the references SanDisk withheld from
 23 the PTO were material because the ALJ in the 560 Investigation found that they invalidated one
 24 claim of the ’517 patent. Fogel Op. at 9; *see* Hall Dec., Ex. N (*In re Certain NOR and NAND*
 25 *Flash Memory Devices and Products Containing Same*, ITC Inv. 337-TA-560, 2007 WL
 26 1900712 (ITC June 1, 2007)). Thus, the only issue the jury is required to consider is whether
 27
 28

SanDisk intended to mislead the PTO.²¹ SanDisk's fails to identify any particular issue relevant to the trial in this case that is beyond the "grasp of an ordinary layperson." Mot. at 13. Finally there are no claim terms that require construction in this case, nor has SanDisk identified any.

B. A Jury Is Entitled to Infer Fraud and Intent to Deceive

SanDisk makes a half-hearted argument that summary judgment is appropriate in this case because there is no evidence of intent to deceive the patent office.²² Judge Fogel, however, in holding that SanDisk was not entitled to summary judgment on this same basis, identified the many circumstances that created a material issue of fact as to SanDisk's intent:

- "SanDisk's patent counsel had relevant prior art in a searchable database designed to ensure compliance with disclosure obligations, but this prior art was not disclosed during ... either the '338 reexamination or the '517 prosecution."
- SanDisk's patent counsel cited the Simko patents in a earlier Harari patent application, but failed to do so during prosecution of the '517 patent.
- SanDisk retained Richard Simko, the named inventor of the Simko patents, to assist with the '338 reexamination
- SanDisk's patent counsel made conflicting statements regarding the omission of JP100, which was in SanDisk's searchable prior art database.
- One of the co-inventors of the '338 patent has offered testimony that raises questions about the accuracy of Sandisk's representations to the USPTO during the '338 reexamination.²³

Ultimately, Judge Fogel concluded that "the statements regarding permanent inhibit made to the USPTO during the reexamination of the '338 patent are arguably in conflict with

²¹ Courts have routinely held that testimony on a party's intent is not an appropriate topic for expert testimony. *Hill v. Novartis Pharms. Corp.*, No. 1:06-cv-00939-AWI-DLB, 2012 WL 5451816, at *2 (E.D. Cal. Nov. 7, 2012) ("The Court finds this and other testimony regarding Defendant's intent, motives or state of mind to be impermissible and outside the scope of expert testimony."); *Johnson v. Wyeth LLC*, No. 10-C-2690, 2012 WL 1204081, at *3 (D. Ariz. Apr. 11, 2012) (precluding plaintiff's experts from offering "opinions concerning defendants' motive, intent, knowledge, or other state of mind").

²² Indeed, SanDisk's counsel argued that the Federal Circuit should not permit direct purchaser standing, in part, because once relevant prior art has been identified, intent "isn't susceptible to summary judgment." Hall Dec., Ex. K at 14:10-11 (Oral Argument Tr., *Ritz Cameral & Image, LLC v. SanDisk Corp.*, No. 2012-1183 (Fed. Cir. Oct. 5, 2012)) (excerpts attached).

²³ Fogel Op. at 12.

statements made by one of the co-inventors of the '338 patent and SanDisk's own expert." Fogel Op. at 13. As a result, "determination of SanDisk's underlying intent regarding the presently alleged sequence of events is not appropriate for resolution on summary judgment." *Id.*; *see also Consol. Elec. Co. v. United States*, 355 F.2d 437, 438 (9th Cir. 1966) (reversing summary judgment, stating "[w]hen an issue requires determination of state of mind, it is unusual that disposition may be made by summary judgment"). SanDisk fails to explain why this Court should reach a contrary conclusion, and this Court should thus deny summary judgment as well.

III. This Court Has Already Held that Plaintiffs Have Article III and Antitrust Standing

Undaunted by two prior opinions of this Court, as well as another by the Federal Circuit, SanDisk again argues that plaintiffs lack Article III and antitrust standing. *See* Dkt. No. 243 at 4 ("This Court finds that dismissal of the instant action for lack of standing is not appropriate."). SanDisk again argues that because plaintiffs are participants in the flash product market, they lack standing to assert Section 2 claims for monopolization in the flash chip market. But this Court has already dispensed with this argument, holding that "raw and finished NAND flash memory product are related," and that the issue of flash chip versus flash products is relevant – if at all – only to class certification issues. *Id.* at 6. Moreover, plaintiffs seek damages based on higher prices they paid for flash memory products directly resulting from SanDisk's monopolization of the flash chip market.²⁴ SanDisk's argument here is nothing more than an improper attempt to seek reconsideration of this Court's prior order regarding standing.

SanDisk further argues that ESE and MFLASH lack standing because they did not purchase either flash chips or flash products during the class period. Dr. Sullivan has opined that both ESE and MFLASH suffered damages as a result of SanDisk's wrongful conduct, however.

²⁴ SanDisk raised the same argument in its motion to exclude Dr. Sullivan's report. Plaintiffs incorporate their opposition on this point by reference. *See* Opp'n to Exclude the Testimony of Dr. Ryan Sullivan (Dkt. No. 264) at 7.

Whether those purchases occurred during the class period, however, and whether the class should be permitted to assert damages prior to 2006 based on SanDisk's fraudulent concealment of its fraud, however, has yet to be determined.²⁵ SanDisk therefore cannot show that it is entitled to summary judgment as to ESE and MFLASH.

IV. Plaintiffs Have Introduced Evidence that SanDisk's Enforcement of the Fraudulently Obtained Patents Resulted in Anticompetitive Prices for Flash Products

Plaintiffs have submitted the expert reports of Dr. Ryan Sullivan, a well-recognized economist who has published peer-reviewed work regarding the use of econometric models to establish damages, including damages in patent cases. Dr. Sullivan's reports span almost 150 pages and include more than 1,000 pages of exhibits and documentation supporting his econometric analysis of the relevant product markets, and the effect that SanDisk's fraud has had on the market for flash chips and flash products. Despite this rigorous and detailed analysis, SanDisk argues that SanDisk has failed to produce "any admissible evidence" and that Dr. Sullivan's opinions are not based "on any economic analysis." Mot. at 17. In so arguing, SanDisk either ignores Dr. Sullivan's analysis, or simply misrepresents the state of the undisputed record.

²⁵ SanDisk assumes that the Court's ruling on amendment "limit[ed] the class to purchases made after June 25, 2006," based on the allegations in the now-operative Fourth Amended Complaint. But the Court's order does not expressly address the scope of the relevant class period, and plaintiffs do not believe that limitation of the class period is a foregone conclusion of the ruling on amendment. The Ninth Circuit has affirmed "the court's power to adjust the class definition to conform to the proof." *Penk v. Or. State Bd. of Higher Educ.*, 816 F.2d 458, 467 (9th Cir. 1987). And at least one court in this circuit has denied a motion to amend the complaint to change the class definition, but nonetheless allowed the plaintiff to advocate that same revised class definition at the certification stage. *See Bueche v. Fidelity Nat'l Mgmt. Servs., LLC*, No. 2:12-cv-01114, 2014 WL 2468601, at *2 (E.D. Cal. June 2, 2014) ("Both parties appear to assume that the definition of the Plaintiff class alleged in the complaint is ultimately binding on the Court. This is an inaccurate assumption.").

SanDisk argues that plaintiffs' theory of antitrust damages depends on four distinct links. Even assuming, *arguendo*, that SanDisk has properly characterized the nature of these links, SanDisk is simply wrong that plaintiffs have failed to offer sufficient record evidence. In sum, SanDisk's entire argument on market power and causation simply rehashes their criticisms of Dr. Sullivan's reports and analyses; defendants' arguments fail for the reasons set forth in plaintiffs opposition papers (Dkt. No. 264, and Feb. 19, 2015 Opposition to Motion to Exclude Testimony of Dr. Ryan Sullivan) which plaintiffs incorporate here by reference.

A. Dr. Sullivan's Opinions Regarding the Effect of the Fraudulently Procured Patents on SanDisk's Royalties Are Supported by Economic Analysis and Record Evidence

SanDisk first argues (at 17) that Dr. Sullivan fails to support his opinion that "flash *chip* manufacturers would not have entered license with SanDisk but-for SanDisk's enforcement of the '338 patent." SanDisk fails to cite any case or authority for the proposition that an economist must consider documentary or testimonial evidence from market participants in order to offer an economic opinion about an economic market. Indeed, the law is to the contrary. *See, e.g., California v. Sutter Health Sys.*, 84 F. Supp. 2d 1057, 1075-76 (N.D. Cal. 2000) (rejecting "observations of . . . market participants" as evidence of market where party failed to provide economic data) (citing *FTC v. Freeman Hosp.*, 69 F.3d 260, 270 (holding that in absence of economic or statistical data indicating market, district court was justified in refusing to credit market participant testimony)). Dr. Sullivan does not need testimony from chip manufacturers that they raised prices in response to the increased costs related to royalties paid to SanDisk in connection with the fraudulently procured patents; Dr. Sullivan relied on market data which shows just that. Second Sullivan Rep. at 43-45.

1 Furthermore, SanDisk is simply wrong on the facts. Dr. Sullivan *did consider* record
 2 evidence from SanDisk's licensees.²⁶ For instance, Dr. Sullivan relied on letters from Hitachi, in
 3 which Hitachi indicates that it will not be able to evaluate a license or licensing terms until the
 4 ITC proceedings involving the '338 patent are concluded. *See* Hall Dec., Ex. L at 50 & nn. 235-
 5 237 (Sullivan Second Report (Nov. 14, 2014)) ("Second Sullivan Rep.") (excerpts attached). Dr.
 6 Sullivan also considered evidence produced by SanDisk reflecting what SanDisk executives had
 7 told potential licensees during licensing negotiations about the '338 patent. For instance,
 8 SanDisk's own expert witness, Brian Napper, testified before the ITC that "While SanDisk
 9 licenses technologies, not individual patents, the '338 Patent plays an important role in
 10 SanDisk's licensing negotiations with key players in the flash memory market." *Id.* at 54, n.261.
 11 Dr. Sullivan was entitled to rely on SanDisk's own accounts of its licensing discussions. There
 12 is simply no requirement that Dr. Sullivan consider the subjective views of SanDisk's licensees
 13 regarding their perceptions or subjective understandings and motivations in lieu of the actual
 14 evidence of what SanDisk told those licensees and the ultimate economic terms of any license
 15 agreement. *See Sutter Health Sys.*, 84 F. Supp. 2d at 1075-76 (rejecting subjective testimony not
 16 supported by market data); *FTC v. Freeman Hosp.*, 69 F.3d at 270 (same).

19 SanDisk also argues that Dr. Sullivan failed to consider whether SanDisk's licensees
 20 actually practiced the licensed technology. Mot. at 18. But Dr. Sullivan did consider this factor,
 21 although he ultimately concluded that "[r]egardless of whether the patents-at-issue were
 22 practiced by particular licensees at particular points in time, economic evidence demonstrates
 23 that the patents-at-issue had a material impact on SanDisk's licensing program." Second
 24 Sullivan Rep. at 56. Dr. Sullivan also considered evidence from SanDisk that it understood that

26 ²⁶ *See* Opp'n to Exclude the Testimony of Dr. Ryan Sullivan (Dkt. No. 264) at 8-9 (describing
 27 Dr. Sullivan's declaration further describing his analysis).

1 Hitachi and Toshiba were willing to enter licensing agreements following the ITC enforcement
2 action, despite the fact that there had been no final determination of the validity of the patents-at-
3 issue, or that Hitachi and Toshiba actually infringed any SanDisk patent. *Id.* at 57. It is simple
4 common sense that a company may wish to avoid the cost and expensive of patent litigation, as
5 well as the potentially devastating impact of an ITC exclusion order, by entering a licensing
6 agreement regardless of whether that company practices the patents-at-issue. It is economic
7 reality that when faced with the threat of litigation, many parties settle without regard to whether
8 they believe, or actually are, liable for any wrongdoing.

10 SanDisk's argument that Dr. Sullivan fails to disaggregate royalties attributable to the
11 fraudulently procured '338 patent from the rest of SanDisk's patent portfolio is flat wrong. In
12 fact, Dr. Sullivan's detailed report explains at length the measures he took to isolate the amounts
13 of royalties paid to SanDisk for the '338 patent separate and apart from the royalty payments
14 attributable to other patents. Dr. Sullivan ultimately concluded that "[f]rom 1997 to 2009 . . .
15 licensing revenues but for the patents-at-issue would have been lower by \$1.5 billion, equal to
16 56.7% of licensing revenues from chip licenses." *Id.* at 64.

18 Nor is Dr. Sullivan's analysis based "on his unsupported *personal belief*." Mot. at 18
19 (emphasis in original). Rather, Dr. Sullivan concluded – after analyzing the relevant data – that
20 "[b]ut for the alleged fraudulent obtainment of the patents-at-issue, it is plausible that SanDisk
21 would have received very little licensing revenues, if any, from its NAND flash technology
22 licensing." Second Sullivan Rep. at 47. Dr. Sullivan explains in his report the factual basis for
23 his conclusion. Specifically, Dr. Sullivan reviewed the licensing history of SanDisk with regard
24 to Samsung, Toshiba and Hitachi, and concluded that in each case the "license agreements . . .
25 were driven primarily by the '338 patent, including SanDisk's assertion of the '338 patent in
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1 demand letters, confirmation of validity by the USPTO in reexamination, and successful
2 enforcement of the reexamined '338 patent in the ITC proceeding with Samsung.” Second
3 Sullivan Rep. at 47. Dr. Sullivan also looked at SanDisk’s licensing agreements with Intel and
4 Hynix, as well as the testimony of SanDisk employees. *Id.* at 93. Dr. Sullivan also explains
5 why he attributed 100% of the royalties SanDisk collected in 1997 to the fraudulently procured
6 patents. *Id.* at 93-103. The economic and factual record indicates that prior to SanDisk’s
7 enforcement of the fraudulent patents and successful litigation at the ITC, Samsung was
8 unwilling to pay SanDisk anything in connection with a license. After the ITC enforcement
9 action in which the ITC determined that Samsung infringed the '338 patent, Samsung entered a
10 license agreement. *Id.* at 91-92. Moreover, Samsung renegotiated its licensing agreement with
11 SanDisk following expiration of the '338 patent at a substantially lower royalty rate. *Id.* at 99.
12 Dr. Sullivan also adjusted the percentage of the royalty paid by licensees over time to account for
13 the potential value of additional non-fraudulent patents obtained by SanDisk and covered by the
14 licensing agreement. Second Sullivan Rep. at Attach. K-10.

17 SanDisk’s argument here is primarily a disagreement with Dr. Sullivan’s conclusion
18 about the centrality of the '338 patent to the royalties SanDisk collected. But SanDisk’s critiques
19 of Dr. Sullivan’s methodology and reasoning is a matter for cross-examination. *City of Pomona*
20 *v. SQM North America Corp.*, 750 F.3d 1036, 1049 (9th Cir. 2014). (“A factual dispute is best
21 settled by a battle of the experts before a fact finder, not by judicial fiat where two experts
22 disagree, it is the job of the fact finder, note the trial court, to determine which source is more
23 credible and reliable.”). SanDisk has failed to show that Dr. Sullivan’s methodology is unsound
24 or that he failed to consider relevant evidence.
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B. Dr. Sullivan’s Econometric Analysis Demonstrates That Flash Chip and Flash Product Prices Were Affected by SanDisk Enforcement of the Fraudulent Patents

Dr. Sullivan considered a mountain of economic data, including sales data, transactional data, royalty payments, independent market data, and testimony of SanDisk employees, as well as statements from market participants. Second Sullivan Rep. at Attach. H-3. Dr. Sullivan then used well-accepted economic regression analysis and concluded that SanDisk’s enforcement of the fraudulently obtained patents resulted in higher prices for flash chip and flash products. *Id.* at 74-78. SanDisk’s argument (at 19) that Dr. Sullivan failed to support his conclusion simply ignores hundreds of pages of economic data and modeling prepared, analyzed and considered by Dr. Sullivan.

SanDisk first argues (at 19) that Dr. Sullivan based his conclusions on the “untested hypothesis” that “flash chip manufacturers raised their prices dollar for dollar in response to paying SanDisk flash chip royalties.” Far from an “untested hypothesis,” Dr. Sullivan employed well-accepted tenets of economics, as well as facts about the flash market in reaching his conclusion. Indeed, SanDisk’s own expert conceded that it is an accepted economic fact that manufacturers will pass on increases in costs when selling their products. *See* Hall Dec., Ex. M at 180:1-181:4 (Keeley Dep. (Jan. 16, 2015)). Moreover, Dr. Sullivan explained the economic basis for his conclusion, citing accepted economic literature regarding the relationship between increased costs and increases in price. *See* Second Sullivan Rep. at 70-71, n.311. Finally, the fact that flash chip prices fell during the period of examination does nothing to rebut the conclusion that SanDisk’s enforcement of its fraudulently obtain patents caused higher prices. It is well accepted that even in markets where prices decline over time, anticompetitive effects can cause artificially higher prices than would exist in a truly competitive market. *See, e.g., In re Urethane Antitrust Litig.*, 768 F.3d 1245, 1254-55 (10th Cir. 2014) (citing cases).

Moreover, Dr. Sullivan's opinion is amply supported by extensive market data of flash chip prices and flash chip sales over a ten-year period. Second Sullivan Rep. at Attach. I-3, M-6, M-8. Dr. Sullivan explained in detail in his reports that his analysis demonstrated a high degree of correlation between the increased costs incurred by manufacturers as a result of royalty payments to SanDisk and increases in the prices of flash products to direct purchasers. Second Sullivan Rep. at Attach. L-10. SanDisk's own expert conceded that Dr. Sullivan's model resulted in a "relatively high fit," although he disagreed with the way Dr. Sullivan designed his model. *See* Hall Dec., Ex. M at 158:5-7 (Keeley Dep. (Nov. 14, 2014)). Dr. Sullivan's analysis provides compelling evidence that the fraudulently obtained patents directly caused higher prices in the flash chip and flash product markets. SanDisk has failed to demonstrate otherwise.

V. There is Substantial Record Evidence that SanDisk Had Market Power in the Flash Chip Market

Dr. Sullivan's economic models demonstrate that SanDisk's ability to extract licensing revenues on flash chip manufacturers affected prices in the flash chip and flash product markets. Those conclusions are based on economic analysis of actual data from the market over the period between 1995 and 2013. Second Sullivan Rep. at Attach. I-3, M-6, M-8. Courts have routinely found this sort of analysis demonstrates market power sufficient to support a claim under Section 2. *See, e.g., Safeway, Inc. v. Abbott Labs*, 761 F. Supp. 2d 874, 886-88 (N.D. Cal. 2011) (evidence of defendant's increase in cost of necessary input to relevant products constituted direct evidence of monopoly power and satisfied plaintiffs' burden at summary judgment; "[t]here is no rule . . . that [evidence of restricted output and supracompetitive prices] is the only way monopoly power can be proved" directly). In addition to his economic models, Dr. Sullivan also considered both indirect and direct evidence of market power. *See* Second

1 Sullivan Rep. at 16-43. SanDisk's argument to the contrary either ignores or badly misstates Dr.
2 Sullivan's analysis and conclusions.

3 **A. Dr. Sullivan Found Indirect Evidence of Market Power**

4 SanDisk argues (at 20) that Dr. Sullivan failed to define a relevant market and failed to
5 employ his chosen methodology. But Dr. Sullivan's Expert Report contains a detailed
6 discussion of his application of the SSNIP test, his chosen methodology. *See* Second Sullivan
7 Rep. at 16-35. After describing the nature of the SSNIP test, Dr. Sullivan's Report contains a
8 six-page discussion of how he applied the SSNIP test to determine the relevant flash chip market.
9 *See Id.* at 24-29. As part of his analysis, Dr. Sullivan cites relevant industry sales data, *see, e.g.,*
10 *id.* at 24 & nn. 95, 97, industry publications regarding the availability of competing technologies,
11 *see, e.g., id.* at 25 & nn. 98-101, as well as market data regarding the availability of non-licensed
12 flash chip alternatives. *See, e.g., id.* at 28 & Attach. I-2 and J-2. Dr. Sullivan concludes that
13 application of the SSNIP tests demonstrates that SanDisk enjoyed market power in the market
14 for flash chips.
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17 **B. The Relevant Measure of Market Power is the Market Share of SanDisk**
18 **Licensees**

19 SanDisk relies on a series of inapposite cases to argue that SanDisk market shares in the
20 respective flash chip and flash product market are too low to establish market power. As an
21 initial matter, courts have routinely recognized that market share is a rudimentary tool for
22 analyzing market power. Indeed, courts have routinely found market power even where a
23 monopolist market share appeared quite low, based on other factors or economic evidence
24 demonstrating market power. *See, e.g., United States v. Visa U.S.A., Inc.*, 344 F.3d 229, 239-40
25 (2d Cir. 2003) (MasterCard had market power, despite having only 26% market share); *In re*
26 *Payment Card Interchange Fee & Merchant Discount Antitrust Litig.*, 562 F. Supp. 2d 392, 400-
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1 03 (E.D.N.Y. 2008). Indeed, the United States District Court for the Eastern District of
2 Wisconsin considered that “SanDisk and its licenses accounted for 89% of worldwide revenue
3 from flash memory chips in 2010” and concluded that “SanDisk enjoys market power in the
4 market for flash memory technology.” *SanDisk v. Kingston Tech. Co., Inc.*, 863 F. Supp. 2d 815,
5 820-821 (E.D. Wis. 2012).
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7 None of the cases relied on by SanDisk considers the effect of licensing rights to
8 intellectual property in determining market share. Dr. Sullivan’s Report sets forth the economic
9 justification for aggregating the market shares of all of SanDisk’s licensees as part of the market
10 share analysis. *See* Second Sullivan at 54-56. Moreover, where, as here, SanDisk has
11 successfully argued that its patented technology is essential to practicing flash chip and flash
12 product technology, SanDisk’s power to exclude market participants that fail to take a license
13 demonstrates the market power it enjoys. *See, e.g., SanDisk*, 863 F. Supp. 2d at 820-821
14 (“SanDisk takes the position that anyone selling flash memory systems in the United States
15 needs a license from it and it enforces this position with litigation.”); Second Sullivan Rep. at 54-
16 56. In cases involving intellectual property rights and licensed technologies, courts have often
17 permitted plaintiffs to use the market share of licensees in stating a claim of market power
18 against a licensor. *Anchor Wall Sys., Inc. v. Rockwood Retaining Walls, Inc.*, No. 06-CV-0466
19 (PJS/RLE), 2007 WL 4465195 (D. Minn. Dec. 18, 2007) (“Rockwood has sufficiently pled a
20 threshold claim of market power which arises from the licensee’s market share.”); *see also FTC*
21 *v. Motion Picture Advertising Serv.*, 344 U.S. 392, 395 (1953) (finding that aggregate effect of
22 four different distributor’s contracts foreclosed 75% of the market notwithstanding the lack of
23 any allegation of conspiracy among the distributors).
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1 SanDisk is similarly wrong that Dr. Sullivan has failed to consider barriers to entry or
2 expansion. Dr. Sullivan's Report contains an extensive discussion of his consideration of these
3 factors. *See* Second Sullivan Rep. at 40-43. Dr. Sullivan concluded that the fact that the
4 licensed technology at issue was a necessary input for finished flash products, and that despite
5 means and motivation to do so no competitor had designed around the patents-at-issue, that the
6 barriers to entry were significant. *Id.* SanDisk's argument to the contrary (at 22) – that he
7 performs no analysis of whether any of these purported barriers imposed higher costs on new
8 entrants than the costs incurred by firms that already competed – is based on a flawed premise.
9 SanDisk assumes that the costs SanDisk incurred in developing its technology were real costs.
10 But that assumption is true only if the developed technology and associated patents were new
11 technology developed by SanDisk. If, as plaintiffs assert, SanDisk's flash chip technology
12 embodied in the '338 and '517 patents was obtained by fraud, rather than by legitimate
13 investment in research and development, then SanDisk incurred no real technology costs, but
14 was nonetheless able to impose substantial costs for that technology on other market participants,
15 who, in turn, were forced to raise their prices or exit the market. That kind of power in the
16 market is the very essence of what economists mean by "market power." Second Sullivan Rep.
17 at 36; *see also High Tech. Careers v. San Jose Mercury News*, 996 F.2d 987, 990 (9th Cir. 1993)
18 ("Monopoly power is the 'power to control prices or exclude competition' in the relevant
19 market and exists whenever prices can be raised above the competitive market levels.")
20 (citation omitted).

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24 SanDisk's characterization of Dr. Sullivan's conclusions regarding the expansion efforts
25 of SanDisk's competitors is similarly misguided. SanDisk argues (at 23) that Hynix, Intel and
26 Micron were are able "to beg[in] producing flash chips after previously producing none, or very
27

little.” But Hynix and Intel were both licensees of SanDisk. *See* Second Sullivan Rep. at Attach. J-2. And Dr. Sullivan concluded that Micron’s market share was not significant enough during the 1997 to 2009 period to effect his conclusions regarding SanDisk’s market power. *Id.* at 28, 37, and Attach. I-5. Finally, contrary to SanDisk’s assertions (Mot. at 23), Dr. Sullivan did analyze the expansion of market share in the USB and media player markets. Dr. Sullivan concluded, however, that the additional costs of licensing technology associated with these other products, as well as the additional component costs, diminished SanDisk’s ability to affect those markets, despite its market power in the market for flash chips. *Id.* at 28-29.

VI. Dr. Sullivan’s Analysis Provides Direct Evidence of SanDisk’s Market Power

SanDisk argument that there is no direct evidence of market power once again simply ignores or grossly mischaracterizes Dr. Sullivan’s work. SanDisk’s claim (at 24) that “Dr. Sullivan provides *no analysis* of output or prices” as to flash chips is a stunning misrepresentation. Dr. Sullivan’s Report describes in detail his regression analysis, in which he considered SKU-level transactional data, market data provided by independent market analysts, and other data. *See* Second Sullivan Rep. at 36-38. Dr. Sullivan then imposed a variety of measures of goodness-of-fit and model selection criteria, including R-squared, adjusted R-squared, Akaike Information Criteria and Bayesian Information Criterion – all standard econometric techniques – to conclude that SanDisk’s enforcement of the fraudulently obtained prices had a direct and measureable effect of the price of flash chips. *Id.* at 73. SanDisk simply ignores this analysis.

Finally, SanDisk argues that Dr. Sullivan failed to define a relevant market. But Dr. Sullivan describes in detail his methodology in defining a relevant market. *Id.* at 22-42. Specifically, he found that SanDisk’s licensing behavior based on the fraudulent patents had affected the price of a significant share of the market for flash chips. *Id.* at 36-37, 62-63. Dr.

1 Sullivan then measured the amount that change in chip price had on final flash product prices.
2 Based on that regression, Dr. Sullivan found that purchasers of final flash products from SanDisk
3 (who offered products in the final flash product market) paid supra-competitive prices of over
4 \$49 million. In any event, SanDisk's argument regarding market definition is a red herring. It is
5 well-established that a market definition is not required where there is direct evidence of market
6 power. *See, e.g., PepsiCo., Inc. v. Coca-Cola Co.*, 315 F.3d 101, 107-08 (3d Cir. 2002)
7 (acknowledging authority that "relevant market definition is not a necessary component of a
8 monopolization claim" and stating market definition is only required "[i]n the absence of direct
9 measurements of a defendant's ability to control price, or exclude competition"); 2A Phillip E.
10 Areeda, *Areeda & Hovenkamp's Antitrust Law*, Para. 531a, at 156 (2002) (stating that a relevant
11 market definition simply serves as a surrogate for market power).²⁷
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14 CONCLUSION

15 For the reasons stated above, SanDisk's Motion for Summary Judgment should be
16 denied.
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27 ²⁷ *See also* Opp'n to Exclude Testimony of Ryan Sullivan (Dkt. No. 264), at 5-6.
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Respectfully submitted,

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CERTIFICATE OF SERVICE

I, Geoff Bentzel, hereby certify that, on February 19, 2015, the foregoing was served via the Court's electronic notification upon counsel for SanDisk.

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